### NATIONAL WEATHER SERVICE INSTRUCTION 10-311 May 21, 2002

Operations and Services
MARINE AND COASTAL WEATHER SERVICE PROGRAM, NWSPD 10-3

#### OFFSHORE, NAVTEX, AND HIGH SEAS MARINE FORECAST SERVICES

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Signed April 4, 2002

Gregory A. Mandt Date

Director, Office of Climate, Water, and Weather Services

## OFFSHORE, NAVTEX, AND HIGH SEAS MARINE FORECAST SERVICES

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### Appendix

- 1. <u>Purpose</u>. The Offshore Waters (OFF), NAVTEX, and High Seas Forecasts (HSF) provide forecast and warning information to mariners who travel on the oceanic waters adjacent to the U.S. and its territorial coastal waters and for those high seas areas for which the U.S. has assumed international forecast and warning responsibility.
- 2. <u>Responsibilities</u>. NWSI 10-302 lists all NWS offices responsible for HSFs, OFFs, and NAVTEX forecasts.
- 3. <u>Offshore Waters Forecasts Contents/Procedures</u>. OFFS, in graphic and alphanumeric format, serve customers who operate from the coastal waters to several hundred NM from shore.
- 3.1 <u>OFF Product Issuance</u>. Issue the OFF twice a day with updates as necessary. NCEP, Alaska Region, or Pacific Region, as dictated by customer requirements, may require scheduled updates. Forecasters should make the OFF available to customers by the scheduled issuance time but no earlier than 1 hour before this issuance time. In the communications header, list the issuance time in UTC, but list the valid time, given in the mass media header, in local time.

Responsible Office	<u>Issuance Times (U</u>	<u>TC</u> )
	Scheduled	Scheduled
	Issuance	Issuance
MPC (Atlantic)	0730(summer)	2000
	0800(winter)	
TPC	0915	2115
MPC (Pacific)	1030	2230
Alaska	1100	2300
Pacific	1000	2200

In all forecasts, include forecast periods as shown below. Use the day of the week to describe forecast periods for all but the current day. For example, in a forecast issued Sunday evening, include: TONIGHT, MON, MON NIGHT, etc.

#### Morning forecasts:

```
Today/This Afternoon (Issuance time to 6PM)
Tonight (6PM to 6AM)
(Next Day) (6AM to 6PM)
(Next Day) Night (6PM to 6AM)
(Day 3 -[Evening Optional]) (6AM to 6PM)
(Day 4) (Midnight to Midnight)
(Day 5) (Midnight to Midnight)
```

The late afternoon forecast will cover:

Tonight	(Issuance time to 6AM)
(Next Day)	(6AM to 6PM)
(Next Day) Night	(6PM to 6AM)
(Day 2)	(6AM to 6PM)
(Day 2 Night)	(6PM to 6AM)
(Day 3 - [Evening optional])	(6AM to 6PM)
(Day 4)	(Midnight to Midnight)
(Day 5)	(Midnight to Midnight)

3.2 <u>OFF - Content/Format</u>. Use the format of the OFF as shown below. Forecasters may subdivide each marine zone (e.g., NORTHERN HALF, SOUTHERN HALF; WATERS SOUTH OF 40N; etc.) to describe significant differences. If geographical reference points are used in the subdivision, forecasters should ensure they are well known.

Similarly, forecasters may combine zones for which they are responsible if conditions are expected to be homogeneous. However, do not combine one zone with just a part of another.

Forecasters should include applicable National Marine Sanctuaries as noted in NWSI 10-302 in the appropriate OFF.

The forecaster may combine periods if, in the forecaster's opinion, the weather elements in each are consistent. Also, the forecaster may subdivide the first period of any OFF forecast to account for rapid changes.

```
(WMO ID) (ISSUANCE DATE TIME )
(AWIPS ID)
```

```
OFFSHORE WATERS FORECAST
NATIONAL WEATHER SERVICE (CITY)(STATE)
(OFFICE IDENTIFIER - IF NEEDED)
(VALID TIME) AM/PM (LOCAL TIME ZONE)(DAY)(DATE)
OFFSHORE WATERS FORECAST FOR (FORECAST AREA)
(SYNOPSIS UGC CODE)-(EXPIRATION DATE TIME)-
SYNOPSIS FOR (TOTAL FORECAST AREA)
.SYNOPSIS...Text
(AREAL UGC[S])-(EXPIRATION TIME)-
(FORECAST AREAL DESCRIPTOR[S])
(VALID TIME) AM/PM (LOCAL TIME ZONE)(DAY)(DATE)
...HEADLINE (if needed)...
.PERIOD 1...
.PERIOD 2...
.PERIOD 3...
.PERIOD 4...
.PERIOD 5 (If needed)...
.(Day 3)...
.(DAY 4)...
.(DAY 5)...
$$
WINDS LEGEND...BEAUFORT WIND FORCE SCALE (Optional)
Forecaster Name (Optional)
```

3.2.1 <u>Synopsis</u>. The synopsis for the OFF should be a concise, understandable description of the significant surface weather features that may cause significant winds and seas over the forecast area during the forecast period. Forecasters should concentrate on the first 48 hours. At a minimum the synopsis should identify major weather systems and the strength, trend, and movement of each. Such systems do not necessarily have to be in the forecast area.

For tropical cyclones expected to impact the forecast area, forecasters should include forecast positions out to 48 hours as noted in applicable advisories.

After 48 hours, less detail is needed. Forecasters should include a general description of systems impacting the area only if they are expected to generate gale force or stronger winds.

3.2.2 <u>Headlines</u>. Use headlines to emphasize weather events likely to have a significant impact on mariners or marine operations. In each headline, indicate the severity of the event in the priority order given below.

The most significant headline generally should stand alone. However, forecasters may include more than one headline to indicate multiple threats or worsening conditions. Do not include a headline that downgrades a current condition in later periods (e.g., a storm warning in effect improving to a gale warning).

In the headline, forecasters should include a general statement of the weather posing the threat, the time period, and, if necessary, the specific area impacted.

Except for severe local storm watches, forecasters should not use specific times (e.g., GALE WARNING IN EFFECT AFTER 9AM).

Do not include headlines for severe local storm watches and warnings, tropical cyclone watches, and small craft advisories in the OFF. However, forecasters may use other headlines, such as WARNING EXPECTED WED or WARNING POSSIBLE MONDAY NIGHT, especially for stronger storms in later forecast periods.

- a. Non-Tropical Storm Related Headlines. In the OFF, forecasters should use the following headlines, in the priority order given, if appropriate criteria are or are expected to be met.
  - 1. Hurricane Force Wind Warning
  - 2. Storm Warning
  - 3. Gale Warning
  - 4. Heavy Freezing Spray Warning

Based on event significance, forecasters may include advisories for events expected to impact the forecast area such as freezing spray, restrictions lowering visibilities below 1 NM, or volcanic ash fallout.

- b. Tropical Cyclone Related Headlines. Keep headlines of tropical cyclones expected to impact the forecast area consistent with those included in the appropriate tropical cyclone advisories.
- 3.2.3 <u>OFF 1-2 Day Forecast Periods</u>. In the OFFs, include specific wind and sea states for all four forecast periods. Forecasters should also include major precipitation events, ice accretion, and low visibility conditions as conditions warrant.
- 3.2.4 OFF 3-5 Day Extended Forecast Periods. Include the most significant wind and sea

height information beginning with period five. However, forecasters may use trend forecasts in lieu of specific wind and sea heights. Forecasters may also note other major events such as ice accretion and low visibility conditions.

When a tropical cyclone threatens to impact an OFF zone, forecasters should include an indication of the tropical cyclone, based on TPC, CPHC, WFO Guam, and/or HPC guidance, for the specific day(s) impacted. Because large positional and intensity errors are possible in these cases, do not use specific wind and sea values.

Example: .FRIDAY...EAST WIND INCREASING TO GALES AND SEAS BUILDING. .SATURDAY...TROPICAL STORM CONDITIONS POSSIBLE. .SUNDAY...HURRICANE CONDITIONS POSSIBLE.

### 3.3 OFF - Text Forecast Parameters

3.3.1 <u>Winds</u>. Winds represent predominant conditions about 10 meters above the surface of the water. Forecasters should give directions to eight points of the compass and speeds rounded to the nearest 5 KT.

Only sustained winds are normally included in the OFF. However, when there are significant differences between sustained winds and peak gusts, forecasters should mention the gusts (e.g., EAST WINDS TO 70 KTS WITH GUSTS TO 120 KTS).

Note significant changes (i.e., at a minimum, those changes denoting a change in warning category) in the winds during the forecast period.

3.3.2 <u>Seas</u>. Give sea state as a combined sea height or break it down into appropriate components (e.g., WIND WAVES 2 TO 4 FT, NORTHEAST SWELL TO 10 FT, SEAS 12 FT). Whenever a SWELL is specified, include the direction from which the swell is propagating, to 8 points of the compass.

Do not use descriptive terms, such as MODERATE or ROUGH.

3.3.3 <u>Significant Weather/Visibility</u>. When it is expected, forecasters should include significant weather posing a hazard to navigation (i.e., widespread fog or other restriction lowering visibilities to 6NM or less, or thunderstorms). Forecasters may use precipitation probability terms "CHANCE", "OCCASIONAL", etc., as defined in WSOM Chapter C-11/NWSI 10-503, and the may include specific visibility distances. However, do not use a qualitative description of visibility (e.g., VISIBILITY FAIR), and do not include sky cover.

3.3.4 <u>Icing</u>. The forecaster should include a headline whenever ice accretion on exposed surfaces is likely. Because ice accumulation rates are ultimately dependent on individual ship characteristics and operating conditions, only use the following terms:

Freezing Spray Heavy Freezing Spray

- 3.4 <u>OFF Unscheduled Forecasts</u>. As needed, append either "...UPDATED" or "...CORRECTED" to the product header whenever, respectively, an unscheduled OFF is issued or when an error in the OFF is corrected. Add a short description of the updated or corrected items just below the areal header to highlight the change.
- 3.5 <u>Graphic Products</u>. Appendix J lists existing offshore graphic products. Forecasters will ensure the graphics are consistent with compatible text products. Additionally, forecasters should ensure graphic products reaching the edges of an office's warning area are consistent with compatible products in neighboring warning areas.
- 3.6 <u>Marine Weather Discussion (MIM)</u>. Marine service offices issuing OFFs should also prepare and disseminate a MIM. These plain language products, analogous to the Area Forecast Discussion (AFD), should be consistent with instructions contained in WSOM Chapter C-45 /NWSI 10-503. Forecasters should issue these shortly before the scheduled OFF forecast. Also, forecasters should issue a brief MIM to provide alert of an impending OFF update. Offices issuing the Tropical Weather Discussion (TWD) may include the MIM in that product. WFO Anchorage should include a discussion of their OFF area in their AFD.
- 4. <u>NAVTEX Forecasts Contents/Procedures</u>. This forecast supports the international SOLAS convention. The NAVTEX forecast is a text forecast issued to accommodate broadcast restrictions of the USCG NAVTEX transmitters.

This product represents a combination of OFF and CWFs. However, those offices issuing the CWF and the OFF will retain full responsibility for those products.

- 4.1 <u>NAVTEX Product Issuance</u>. All times for the NAVTEX Forecasts will be the same as for the OFFs.
- 4.2 <u>NAVTEX Content/Format</u>. For the NAVTEX forecast, follow the same format as the CWF and the OFF. Exceptions: Do not include Universal Generic Codes (UGCs) and include only 4 forecast periods with NAVTEX forecasts.

In each NAVTEX forecast, match the broadcast areas of the appropriate USCG transmitters as listed in NWSI 10-302. Forecasters may combine forecast periods if weather features are similar.

No NAVTEX forecast will be longer than 89 lines including blank lines. Include the phrase: 'REFER TO COASTAL WATERS FORECASTS (CWF) FOR DETAILED COASTAL WATERS INFORMATION' before the synopsis.

To ensure proper dissemination of the NAVTEX forecast, follow the following format:

```
(WMO ID) (ISSUANCE DATE TIME)
(AWIPS ID)
NAVTEX MARINE FORECAST
NATIONAL WEATHER SERVICE (CITY)(STATE)
(OFFICE IDENTIFIER - If Needed)
(SCHEDULED ISSUANCE TIME) AM/PM (LOCAL TIME ZONE)(DAY)(DATE)
...REFER TO COASTAL WATERS FORECASTS (CWF) FOR DETAILED COASTAL
WATERS INFORMATION...
.SYNOPSIS...(Text)
(FORECAST AREA[S])
...HEADLINE(S) (if necessary)...
Period 1...
Period 2...
Period 3...
.Period 4...
$$
Forecaster Name (Optional)
```

- 4.2.1 <u>Synopsis</u>. The forecaster should make the synopsis consistent with the synopses in the CWF and OFF.
- 4.2.2 <u>Headlines</u>. List applicable headlines from both CWFs and OFFs, including those involving the extended portion of the forecast, in the NAVTEX forecast. Exception: Do not include headlines for small craft advisories or for severe local storm watches and warnings. Append the annotation 'WITHIN XX NM OF SHORE' for items restricted to coastal waters areas, where XX is the appropriate distance for the applicable WFO.
- 4.2.3 <u>1-2 Day Forecast Periods</u>. Include weather conditions representing values found

throughout the entire forecast area.

- 4.2.4 <u>3-5 Day Forecast Periods</u>. Not included.
- 4.3 <u>NAVTEX Text Forecast Parameters</u>. In the NAVTEX forecast, include the same forecast parameters as the OFF and the CWF.
- 4.4 <u>NAVTEX Unscheduled Forecasts</u>. Update NAVTEX forecasts only in the rarest of circumstances when a major modification is required.
- 5. <u>High Seas Forecast Contents/Procedures</u>. HSFs include graphic and alphanumeric products designed to serve customers making ocean transits. NWSI 10-302 lists office responsibilities for the various products.
- 5.1 <u>HSF Product/Issuance</u>. Issue HSFs four times per day for a 48 hour period as noted:

<b>Issuing Office</b>	<u>Issuance Times(UTC)</u>			<b>Effect</b>	Effective Until(UTC)			
	Curren	Current Day			Day 2			
MPC/Atl.	0430	1030	1630	2230	0000	0600	1200	1800
TPC/Atl.								
TPC/Pac./(N. of Equator)	TPC/Pac./(N. of Equator)							
MPC/Pac.	0500	1100	1700	2300	0000	0600	1200	1800
HFO/Pac./(N. of Equator)								
TPC/Pac./(S. of Equator)	0515	1115	1715	2315	0000	0600	1200	1800
HFO/Pac./(S. of Equator)	0530	1130	1730	2330	0000	0600	1200	1800

5.2 <u>HSF - Content/Format</u>. To ensure understanding by customers with diverse English language abilities, only use the abbreviations noted in NWSI 10-301. Also, include in the header the appropriate World Meteorological Organization (WMO) Meteorological Area (METAREA) as shown in NWSI 10-302. The basic format for the HSF is as follows:

(WMO ID) (ISSUANCE DATE TIME) (AWIPS ID)

#### **CCODES**

HIGH SEAS FORECAST FOR METAREA (XXX)
NATIONAL WEATHER SERVICE (CITY)(STATE)
(OFFICE IDENTIFIER - If Needed)(SCHEDULED ISSUANCE TIME)UTC (DATE)
SUPERCEDED BY NEXT ISSUANCE IN 6 HOURS

SECURITE (OR PAN PAN)

FORECAST AREA DESIGNATOR SYNOPSIS VALID (VALID TIME)UTC (DATE) FORECAST VALID (END VALID TIME)UTC (DATE)

WARNINGS

TEXT...(INCLUDE EXTENDED OUTLOOK DURING HURRICANE SEASON)

#### SYNOPSIS AND FORECAST

- 5.2.1 <u>Securite/Pan Pan</u>. The term SECURITE is an international communications code that indicates safety information follows. Substitute the term PAN PAN for SECURITE whenever tropical cyclone warnings or whenever hurricane force wind warnings generated by non-tropical cyclones are included. Include one of these terms in all HSFs.
- 5.2.2 <u>Warnings</u>. Include in this part of the HSF individual paragraphs listed by category of warning (hurricane, tropical storm, tropical depression, hurricane force wind, storm, or gale). In each paragraph, include a synopsis taken from, as applicable, the latest synoptic surface analysis or the latest tropical cyclone forecast/advisory from National Hurricane Center or CPHC showing the following:
  - a. For tropical cyclones only, the cyclone's strength (tropical depression, tropical storm, or hurricane) and its identifier;
  - b. For all storms.
    - 1) the location of the storm center (in whole degrees of latitude and longitude);
    - 2) the central pressure of the storm (in millibars);
    - 3) for each quadrant of the storm, the areal coverage (in nautical miles from the storm center) of the various wind categories (storm, gale, etc.) and of seas greater than 8 ft;
    - 4) the direction (eight points of the compass), speed of movement (knots), and trend in movement and/or intensity of the storm.
  - c. Same as 2 but expected at 24 hours.
  - d. Same as 2 but expected at 48 hours.
  - e. For non-tropical systems, analyses locations and forecast locations of fronts and troughs associated with such warnings.
  - f. For tropical cyclones, the statement "REQUEST 3 HOURLY SHIP REPORTS WITHIN 300 NM OF CENTER" added at the end of the warning section.

Also, forecasters should include a warning if a volcanic eruption is expected to have a significant impact on marine operations in a high seas area. If issued, include in the warning paragraph the name of the volcano, its location, the area affected, and how operations are impacted.

Describe expected changes with reference to time in UTC and day rather than TONIGHT, FRI MORNING, etc. If no warnings are expected, include 'NONE' in this section.

These paragraphs are hierarchical in order listing the most intense system first followed by other systems in descending order of intensity:

- a. Hurricane(s),
- b. Tropical Storm(s),
- c. Hurricane Force.
- d. Storm(s),
- e. Developing Storm(s)
- f. Gale(s)
- g. Developing Gale(s)
- h. Tropical Depression(s).
- i. Volcano

If two or more storms have equal intensity categories, list the areas in descending order of importance or threat.

During the hurricane season, include an extended outlook at the end of the WARNING section providing forecasts of any tropical cyclones expected to enter or cross the forecast area by 72 hours from valid time. Forecasters should include the phrase, 'FOR GUIDANCE USE ONLY...ERRORS MAY BE LARGE' in this section.

Do not include severe local storm watches and warnings and do not include small craft advisories in HSFs.

- 5.2.3 <u>Synopsis and Forecast</u>. In this part of the HSF, provide a brief description of the most significant synoptic scale features found in the forecast area for which warnings are not needed. The format is similar to that used in the warning areas. Use the time of the last previous surface analysis as the Synopsis Valid Time. Use 48 hours from that Synopsis Valid Time as the Forecast Valid Time.
- 5.3 <u>HSF Text Forecast Parameters</u>.
- 5.3.1 <u>Winds</u>. Winds represent predominant conditions at about 10 meters above the surface of the water. Describe forecast wind speeds with either one representative value or, when significant differences are expected, with a small (i.e., 10 KT) range of values for the affected area. Forecasters

may give these in terms of distances from the low pressure center, distances from the front or trough, or by latitude/longitude. Differences in the radial extent of forecast winds around a low pressure center are usually distinguished by quadrant or semicircle. Forecasters need not include wind direction.

Forecasters should usually limit the description of winds to areas in which they are 20 KT or higher. They may use a statement such as WINDS LESS THAN 20 KT for conditions elsewhere in the forecast area. These thresholds may be adjusted to account for climatology.

5.3.2 <u>Seas</u>. Describe forecast sea heights with either one representative value or, when significant differences are expected, with a relatively small (i.e., 5 FT) range of values for the affected area. Forecasters may give these in terms of distances from the low pressure center, distances from the front or trough, or by latitude/longitude. Differences in the radial extent of forecast seas around a low pressure center are usually distinguished by quadrant or semicircle.

Forecasters should usually limit the description of seas to areas in which they are 8 ft or higher. They may use a statement such as SEAS LESS THAN 8 FT for conditions elsewhere in the forecast area. These thresholds may be adjusted to account for climatology.

5.3.3 <u>Significant Weather/Visibility</u>. Include significant weather such as obstructions to visibility, squalls, and ship icing.

For those HSFs covering areas south of 30N, forecasters may include thunderstorm information associated with the Intertropical Convergence Zone.

Forecasters should emphasize visibilities expected to be less than 1 NM in the HSF. They should mention obstructions to vision below 6 NM if the condition is widespread enough to affect a significant portion of the forecast area. They may include specific distances. However, do not use a qualitative description of visibility (e.g., VISIBILITY FAIR), and do not include cloud conditions in the HSF.

- 5.3.4 <u>Icing</u>. When appropriate, include a headline for HEAVY FREEZING SPRAY in the HSF.
- 5.4 <u>HSF Unscheduled Forecasts</u>. Issue updates when an extraordinary change in weather adversely impacting high seas mariners is expected.
- 5.5 <u>Graphic Products</u>. Appendix A lists graphic high seas products. Ensure these products are consistent with information contained in compatible text products. Also, forecasters should ensure consistency between these graphics and products of neighboring offices.

# APPENDIX A - Examples of NWS Offshore, NAVTEX, and High Seas Forecasts

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5. High Seas Forecas	sts		A-15
1. Graphics Products	s. Following ar	e official NWS graphic products:	
ISSUING OFFICE	AREA	TYPE OF PRODUCT	VT-UTC
Marine Prediction ATL Center (MPC)		Surface Analysis Wind/Wave Analysis 500 mb Analysis	00
		<ul><li>24 Hour Wind/Wave Forecast</li><li>24 Hour Surface Forecast</li><li>24 Hour 500 mb Forecast</li></ul>	
		36 Hour 500 mb Forecast	
		48 Hour Wind/Wave Forecast 48 Hour Wave Period Forecast 48 Hour Surface Forecast 48 Hour 500 mb Forecast	
		Wind/Wave Analysis	03
		Surface Analysis Wind/Wave Analysis	06
		Surface Analysis	12

MPC (cont)	ATL (cont.)	Sea State Analysis Wind/Wave Analysis 500 mb Analysis	12(cont.)
		24 Hour Wind/Wave Forecast	
		24 Hour Surface Forecast	
		24 Hour 500 mb Forecast	
		<b>2</b> 1 110 <b>0</b> 2 0 0 11 0 1 0 2 <b>0</b> 0 0 1	
		36 Hour 500 mb Forecast	
		48 Hour Wind/Wave Forecast	
		48 Hour Wave Period	
		48 Hour Surface Forecast	
		48 Hour 500 mb Forecast	
		96 Hour Surface Forecast	
		96 Hour 500 mb Forecast	
		96 Hour Wind/Wave Forecast	
		96 Hour Wave Period Forecast	15
		Wind/Wave Analysis	18
		Surface Analysis	
		Wind/Wave Analysis	21
	PAC	Wind/Wave Analysis	00
		Surface Analysis	
		Wind/wave Analysis	
		500 mb Analysis	
		Sea State Analysis	
		Sea State Allarysis	
		24 Hour Wind/Wave Forecast	
		24 Hour Surface Forecast	
		48 Hour Wind/Wave Forecast	
		48 Hour Wave Period Forecast	
		48 Hour Surface Forecast	
		48 Hour 500 mb Forecast	03
		Wind/Wave Analysis	06

		Surface Analysis Wind/Wave Analysis	12
MPC (cont.)	PAC (cont.)	Surface Analysis Wind/Wave Analysis 500 mb Analysis	12(cont.)
		<ul><li>24 Hour Wind/Wave Forecast</li><li>24 Hour Surface Forecast</li></ul>	
		48 Hour Wind/Wave Forecast 48 Hour Wave Period 48 Hour Surface Forecast 48 Hour 500 mb Forecast	
		96 Hour Surface Forecast 96 Hour 500 mb Forecast 96 Hour Wind/Wave Forecast 96 Hour Wave Period Forecast	15
		Wind/Wave Analysis	18
Tropical Prediction	ATL	Wind/Wave Analysis Surface Analysis	21
Center (TPC)	TIL	Wind/Wave Analysis	00
		Tropical Surface Analysis 00 Hr Sea State Analysis 24 Hour Wind/Sea Forecast 48/72 Hour Wind/Sea Forecast	
		48/72 Wave Per./Swell Dir.	03
		Tropical Cyclone Danger Area	06
		Tropical Surface Analysis 00 Hr Sea State Analysis	
		24 Hour Wind/Sea Forecast	09
		Tropical Cyclone Danger Area	12

		Tropical Surface Analysis 00 Hr Sea State Analysis 24 Hour Wind/Sea Forecast	
		48 Hour Wind/Sea Forecast 48 Wave Per./Swell Dir.	15
TPC (cont.)	ATL (cont.)	Tropical Cyclone Danger Area	18
- (** **)	(1111)	Tropical Surface Analysis	18(cont.)
		00 Hr Sea State Analysis	- ( )
	PAC	24 Hour Wind/Sea Forecast	21
		Tropical Cyclone Danger Area	00
		Tropical Surface Analysis	
		Trop. 00/24 Hr. Wind/Sea Fcst.	
		Trop. 48 Hr. Wind/Sea Fcst.	
		Trop. 48/72 Hr. Wave	0.2
		Per./Swell Dir.	03
		Tropical Cyclone Danger Area	06
		Tropical Surface Analysis	
		Trop. 00/24 Hr. Wind/Sea Fcst.	12
		Tropical Surface Analysis	
		Trop. 00/24 Hr. Wind/Sea Fcst.	
		Trop. 48 Hr.Wv.Per./Swell Dir.	
		Trop. 48/72 Hr. Wind/Sea Fcst.	15
Weather Forecast	PAC	Tropical Cyclone Danger Area	18
Office (WFO)	TAC	Tropical Surface Analysis	
ANCHORAGE		Trop. 00/24 Hr. Wind/Sea Fcst.	00
		Sea Surface Temp. Analysis	
		36 Hour Surface Forecast	
		120 Hour Sea Ice Forecast	12
		Sea Ice Analysis	
		18 Hour Sig. Wave Forecast	

WFO HONOLULU	PAC	36 Hour Surface Forecast 72 Hour Surface forecast	
		96 Hour Surface Forecast	00
			00
		120 Hour Surface Forecast	06
			06
		Surface Analysis	10
			12
		Surface Analysis	10
A TATION OF THE PO	<b>D</b> .4.6		18
AUTOMATED	PAC	Surface Analysis	
PRODUCT from			00
NCEP		Surface Analysis	
		Tropical Surface Analysis	
		Sea Surface Temp. Analysis	
		24 Hour Wind/Wave Forecast	
		24 Hour Wind/Stream Forecast	
		48 Hour Surface Forecast	
		48 Hour Wind/Wave Forecast	
		48 Hour Wind/Stream Forecast	06
		48 hour 500 mb Forecast	
			12
		Tropical Surface Analysis	
		Tropical Surface Analysis	
		40 M . G . G . F	10
		48 Hour Surface Forecast	18
		48 Hour 500 mb Forecast	
		Tropical Surface Analysis	

#### 1. Offshore Waters Forecasts:

FZNT23 KNHC 231530 OFFNT3

OFFSHORE WATERS FORECAST NATIONAL WEATHER SERVICE MIAMI FL TROPICAL PREDICTION CENTER TROPICAL ANALYSIS AND FORECAST BRANCH 1130 AM EDT TUE SEP 23 2001

OFFSHORE WATERS FORECAST FOR THE SOUTHWEST NORTH ATLANTIC SOUTH OF 31N AND WEST OF 65 WEST...THE CARIBBEAN SEA...AND THE TROPICAL NORTH ATLANTIC EAST OF THE LESSER ANTILLES AND WEST OF 55N BETWEEN THE COASTAL WATERS OF SOUTH AMERICA AND 22N

AMZ089-232130-SYNOPSIS FOR THE CARIBBEAN

.SYNOPSIS...HURRICANE MELINDA NEAR 16.0N 64.0W 960 MB AT 1500 UTC IS MOVING NW AT 10 KT. MELINDA WILL MOVE TO 17.4N 65.7W BY LATE TONIGHT... TO 19N 67.5W WED MORNING...AND TO 20.2N 70.7W BY EARLY THU MORNING. MELINDA SHOULD CONTINUE NORTH AND DEPART THE AREA SAT. A COLD FRONT WILL MOVE INTO THE EXTREME NW CARIBBEAN LATE WED AND WED NIGHT BEFORE STALLING.

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AMZ082-232130-NORTHWEST CARIBBEAN NORTH OF 15N WEST OF 75W-1130 AM EDT TUE SEP 23 2001

...GALES POSSIBLE SAT...

.THIS AFTERNOON...W OF 85W SW WIND 10 KT OR LESS. SEAS LESS THAN 5 FT. E OF 85W WIND S 10 KT OR LESS. SEAS LESS THAN 5 FT. SCATTERED SHOWERS AND TSTMS W OF 83W.

.TONIGHT...W OF 80W WIND NE 10 TO 15 KT. SEAS 5 FT. E OF 80W WIND NW 10 TO 15 KT. SEAS 4 TO 6 FT. WIDELY SCATTERED SHOWERS AND TSTMS W OF 82W. .WED...W OF 80W WIND NE 10 TO 15 KT...BECOMING N 15 TO 20 KT N OF THE COLD FRONT. SEAS LESS THAN 5 FT...BUILDING TO 7 FT N OF THE COLD FRONT LATE. E OF 80W WIND NE 10 TO 15 KT. SEAS 4 TO 6 FT. WIDELY SCATTERED SHOWERS AND TSTMS E OF THE COLD FRONT.

.WED NIGHT...N OF THE COLD FRONT WIND NE 20 KT. SEAS 6 TO 8 FT. N OF 18N E OF 77W WIND NE 20 TO 25 KT. SEAS 6 TO 9 FT. ELSEWHERE E OF THE COLD FRONT WIND NE 10 TO 15 KT. SEAS 4 TO 6 FT. WIDELY SCATTERED SHOWERS AND TSTMS E OF THE COLD FRONT.

.THU AND FRI...WIND AND SEAS WILL SHOW LITTLE CHANGE.
.SAT...INCREASING SW WINDS WITH GALES POSSIBLE BY EVENING. SEAS BUILDING.

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AMZ084-232130-SOUTHWEST CARIBBEAN SOUTH OF 15N WEST OF 75W-1130 AM EDT TUE SEP 23 2001

.THIS AFTERNOON...E OF 82W WIND NE 15 TO 20 KT. SEAS 6 TO 8 FT. W OF 82W WIND NE 15 KT. SEAS 4 TO 6 FT. WIDELY SCATTERED SHOWERS S OF 13N. .TONIGHT AND WED...E OF 82W WIND NE 15 TO 20 KT. SEAS 5 TO 7 FT. W OF 82W WIND NE 10 TO 15 KT. SEAS 5 FT. WIDELY SCATTERED SHOWERS S OF 13N. .WED NIGHT...E OF 80W WIND NE 20 KT. SEAS 6 TO 8 FT. W OF 80W WIND NE 15 KT. SEAS 4 TO 6 FT.

.THU THROUGH SAT...WIND AND SEAS WILL SHOW LITTLE CHANGE. \$\$

AMZ086-232130-EAST CARIBBEAN E OF 75W-1130 AM EDT TUE SEP 23 2001

...HURRICANE WARNING FOR MELINDA...

.THIS AFTERNOON...HIGHEST WIND 100 KT WITH GUSTS TO 120 KT NEAR CENTER OF MELINDA. TROPICAL STORM FORCE OR GREATER WINDS WITHIN 180 NM FROM CENTER. SEAS 12 FT AND HIGHER IN AREA OF TROPICAL STORM FORCE OR GREATER WINDS. ELSEWHERE N OF 12N E OF 72W WIND NW 20 TO 30 KT. SEAS 8 TO 12 FT. REMAINDER OF AREA W OF 72W WIND SW 20 KT. SEAS 6 TO 9 FT. RAIN AND FREQUENT SQUALLS IN WARNING AREAS. SCATTERED SHOWERS AND TSTMS ELSEWHERE.

.TONIGHT...HIGHEST WIND 100 KT WITH GUSTS TO 120 KT NEAR CENTER OF MELINDA. LOCAL STORM FORCE OR GREATER WINDS WITHIN 180 NM FROM CENTER. SEAS 12 FT AND HIGHER IN AREA OF TROPICAL STORM FORCE OR GREATER WINDS. ELSEWHERE N OF 12N E OF 73W SW WIND 20 TO 30 KT. SEAS 8 TO 12 FT. REMAINDER OF AREA W OF 73W WIND NW 20 KT. SEAS 6 TO 9 FT. RAIN

AND FREQUENT SQUALLS IN WARNING AREAS. SCATTERED SHOWERS AND TSTMS ELSEWHERE.

.WED AND WED NIGHT...HIGHEST WIND 90 KT WITH GUSTS TO 105 KT NEAR CENTER OF MELINDA. TROPICAL STORM FORCE OR GREATER WINDS WITHIN 180 NM FROM CENTER. SEAS 12 FT OR HIGHER IN AREA OF TROPICAL STORM FORCE OR GREATER WINDS. ELSEWHERE N OF 15N BETWEEN 62W AND 75W W WIND 20 TO 33 KT. SEAS 8 TO 12 FT. REMAINDER OF AREA WIND SW 20 TO 25 KT. SEAS 8 TO 11 FT. RAIN AND FREQUENT SQUALLS IN WARNING AREA. SCATTERED SHOWERS AND TSTMS ELSEWHERE.

.THU THROUGH SAT...WIND AND SEAS WILL SUBSIDE OVER E CARIBBEAN THROUGH SAT.

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AMZ088-232130-

SYNOPSIS FOR SOUTHWEST NORTH ATLANTIC AND THE TROPICAL NORTH ATLANTIC

.SYNOPSIS...HURRICANE MELINDA IN CARIBBEAN NEAR 16.0N 64.0W 960 MB AT 1500 UTC IS MOVING NW 10 KT AND WILL MOVE TO 17.4N 65.7W BY LATE TONIGHT...TO 19N 67.5W WED MORNING...AND TO 20.2N 70.7W BY EARLY THU MORNING. MELINDA WILL CONTINUE NORTHWEST AND WEAKEN SLIGHTLY THROUGH SAT BEFORE TURNING NORTH SUN.

AMZ080-232130-SOUTHWEST NORTH ATLANTIC SOUTH OF 31N WEST OF 65W 1130 AM EDT TUE SEP 23 2001

...WARNING FOR HURRICANE MELINDA...

THIS AFTERNOON...S OF 20N E OF 67W WIND E 35 TO 50 KT. SEAS 11 TO 16 FT. ELSEWHERE S OF 23N E OF 70W WIND E 20 TO 30 KT. SEAS 8 TO 11 FT. REMAINDER OF AREA S OF RIDGE WIND NE 15 TO 20 KT. SEAS 5 TO 7 FT. N OF RIDGE WIND NW 10 KT. SEAS 5 FT OR LESS. RAIN AND FREQUENT SQUALLS S OF 21N E OF 67W. TONIGHT...S OF 21N E OF 70W WIND E 35 TO 60 KT. SEAS 11 TO 16 FT. ELSEWHERE S OF 23N E OF 72W WIND NE 20 TO 30 KT. SEAS 8 TO 11 FT. REMAINDER OF AREA S OF RIDGE WIND NE 15 TO 20 KT. SEAS 5 TO 7 FT. N OF RIDGE WIND NW 10 KT. SEAS 5 FT OR LESS. RAIN AND FREQUENT SQUALLS S OF 21N E OF 69W. WED AND WED NIGHT...HIGHEST WIND 90 KT WITH GUSTS TO 105 KT NEAR CENTER OF MELINDA. RADIUS OF TROPICAL STORM FORCE OR GREATER WINDS WITHIN 180 NM OF CENTER. SEAS 12 FT AND HIGHER IN AREA OF TROPICAL STORM FORCE

OR GREATER WINDS. ELSEWHERE S OF 25N E OF 76W WIND 30 TO 40 KT. SEAS 8 TO 12 FT. REMAINDER OF AREA S OF RIDGE WIND NE 15 TO 20 KT. SEAS 5 TO 7 FT. N OF RIDGE WIND NW 10 KT. SEAS 5 FT OR LESS. RAIN AND FREQUENT SQUALLS IN WARNING AREA.

.THU THROUGH SAT... HURRICANE MELINDA WILL CONTINUE TO IMPACT THE AREA.

AMZ087-232130-

THE TROPICAL NORTH ATLANTIC BETWEEN 55W AND 65W FROM THE COASTAL WATERS OF SOUTH AMERICA TO 22N INCLUDING WATERS NORTH AND EAST OF THE LEEWARD AND WINDWARD ISLANDS.

1130 AM EDT TUE SEP 23 2001

...WARNING FOR TROPICAL STORM FORCE WINDS FROM MELINDA...

.THIS AFTERNOON...W OF 61W WIND SE 40 TO 60 KT. SEAS 11 TO 16 FT. ELSEWHERE E OF 61W WIND SW 20 TO 30 KT. SEAS 8 TO 11 FT. RAIN AND FREQUENT SQUALLS W OF 61W.

.TONIGHT...W OF 63W WIND SE 35 TO 50 KT. SEAS 11 TO 16 FT. ELSEWHERE E OF 63W WIND SE 20 TO 25 KT. SEAS 8 TO 11 FT. RAIN AND FREQUENT SQUALLS W OF 63W.

.WED AND WED NIGHT...WIND SE 15 TO 20 KT. SEAS 5 TO 7 FT.

.THU THROUGH SAT... HURRICANE MELINDA WILL CONTINUE TO IMPACT THE AREA.

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WINDS LEGEND...BEAUFORT WIND FORCE SCALE LIGHT...FORCE 1-3...10 KT OR LESS MODERATE...FORCE 4-5...11 TO 21 KT STRONG...FORCE 6-7...22 TO 33 KT TROPICAL STORM...FORCE 8-11...34-63 KT HURRICANE...FORCE 12...64 KT OR HIGHER

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FZPN25 KWBC 021958 OFFPZ5

OFFSHORE WATERS FORECAST NATIONAL WEATHER SERVICE WASHINGTON DC MARINE PREDICTION CENTER MARINE FORECAST BRANCH 300 PM EST FRI 2 MAR 2001

OFFSHORE WATERS FORECAST FOR WASHINGTON AND OREGON WATERS FROM 60 TO 250 NM OFFSHORE

PZZ080-030200-

SYNOPSIS FOR WASHINGTON AND OREGON WATERS FROM 60 TO 250 NM OFFSHORE

.SYNOPSIS...VERY STRONG LOW PRESSURE SYSTEM NEAR THE QUEEN CHARLOTTE ISLANDS WILL WEAKEN AS IT DRIFTS NE AND INLAND TONIGHT. HIGH PRESSURE WILL BUILD ACROSS THE WATERS SAT NIGHT AND SUN. A WEAKENING LOW WILL APPROACH FROM THE W MON PASSING SOUTH OF THE AREA MON NIGHT AND TUE.

PZZ081-082-030200-CAPE FLATTERY TO CAPE LOOKOUT CAPE LOOKOUT TO POINT ST. GEORGE 300 PM EST FRI 2 MAR 2001

...HURRICANE FORCE WARNING...

...HEAVY FREEZING SPRAY WARNING...

.TONIGHT...W TO SW WINDS 60 TO 70 KT DIMINISHING TO 35 KT. SEAS 30 TO 45 FT...SUBSIDING TO 30 TO 36 FT. SCATTERED SHOWERS ENDING. HEAVY FREEZING SPRAY THROUGH EARLY MORNING.

.SAT...W WINDS DECREASING TO 20 KT. SEAS SUBSIDING TO 16 TO 20 FT.

.SAT NIGHT AND SUN...VARIABLE WINDS 10 KT BECOMING S OVER W PORTION. SEAS SUBSIDING TO 12 TO 15 FT MAINLY AS A W SWELL.

.SUN NIGHT THROUGH TUE...LITTLE CHANGE IN THE WIND AND SEAS THROUGH SUN NIGHT WITH W SWELL CONTINUING THROUGH TUE. S WINDS...POSSIBLY GALES...DEVELOPING MON BEFORE BECOMING NW AND DIMINISHING MON NIGHT AND TUE. LARGER WIND WAVES POSSIBLE MON SUBSIDING TUE.

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VUKITS MARINE FORECAST BRANCH

#### 3. Marine Weather Discussion:

AGNT40 KWMN 021346 MIMATN

MARINE WEATHER DISCUSSION NATIONAL WEATHER SERVICE WASHINGTON DC MARINE PREDICTION CENTER MARINE FORECAST BRANCH 104 AM EST FRI MAR 2 2001

FORECAST DISCUSSION: MAJOR FEATURES/WINDS/SEAS/SIGNIFICANT WEATHER FOR NORTH ATLANTIC OCEAN W OF 50W FROM 30N TO 50N:

MARINE WEATHER DISCUSSION FOR NORTH ATLANTIC OCEAN W OF 50W FROM 30N TO 50N. REF. AWIPS...SURFACE/NCEP GRAPHICS/SURFACE OBS/WATL WIND/WAVE.

THRU 48-60 HRS...MODELS IN REASONABLE AGREEMENT...STRONG POLAR VORTEX CENTERED ACRS FAR NE NEW ENGLAND STRETCHES OUT IN AN E/W MANNER...AS THE STG BLOCKING RDG TO NE TO RETROGRADES FM NEAR 60N 50W TO 60N 80W. SHORT WAVE TROFS IN THE OVERALL CYCLONIC FLOW WILL SUPPORT THE FORMATION OF SFC LOWS IN/NEAR THE NEW ENGLAND WATERS...

THEN THESE LOWS WILL MOVE E WHILE INTENSIFYING. AS THESE LOWS FORM AND MOVE E OF THE WATERS...THE COLD AIR ADVECTION IS INCREASED ACRS THE NRN PORTION OF THE OFSHR WATERS...WITH THE ASSOCD PICK UP IN THE WIND AND SEAS. AVN IS THE STRONGEST WITH THE LOW DEVELOPING S OF CAPE SABLE LATE SAT...1001 MB. THIS IS REASONABLY CONSISTENT WITH ITS PREVIOUS RUN. ETA IS MUCH WEAKER OVERALL. WILL GO WITH TREND ESTABLISHED IN PREV FCST...AND GO WITH WINDS UP TO 30 KT IN THE NE NT2 AND ERN NEW ENG WATERS FOR SAT.

EXTENDED PERIOD...AT 60 HRS...THE ETA KEEPS ALL OF THE ENERGY WITH THE POLAR VORTEX INLAND...NE OF THE GREAT LAKES...AND THERE IS NO PHASING OF THE NRN AND SRN STREAMS. THIS ALLOWS THE SRN STREAM SHORT WAVE TO BE VERY PROGRESSIVE...AND THE SFC CENTER MOVES OFSHR SAT NIGHT INTO SUN...WITH PRES NR 1000 MB. THE NEW AVN SURE DOES GET YOUR ATTENTION! TREND ON AVN AND PREVIOUS MRFX IS FOR MUCH OF THE ENERGY WITH THE POLAR VORTEX TO MOVE E...WHILE A SMALLER PORTION OF IT REMAINS ACRS THE LWR GRTLKS. THE HIGH LAT UPR RDG MOVES SWWD... WHILE RDGG BUILDS INTO THE CENTRAL PORTION OF THE US. THE INLAND REMNANT OF THE POLAR VORTEX PHASES WITH THE SRN STREAM SHORT WAVE

ON MON. THE ASSOCD SURFACE LOW THEN DEEPENS RAPIDLY AS THE H5 CENTER CLOSES OFF AND THE LOW INTERACTS WITH THE GULF STREAM. THIS IS THE SAME TREND ESTABLISHED ON THE PREVIOUS MRFX...AND THE 00Z NOGAPS. 12Z UKMET/EURO AND LATEST CNDN TRENDED TOWARD THE ETA...PROGRESSIVE SRN STREAM...PHASING OF THE STREAMS OCRG MUCH FURTHER E GOING WITH THE AVN/MRFX TRENDS...THE LOW REMAINS FURTHER W AND IS MUCH DEEPER THAN THE OTHER MODELS. WILL TREND TOWARD THIS SOLUTION. NELY GALES ARE LKLY ON SUN FM THE LWR DELMARVA TO JUST S CAPE HATTERAS...AND OFSHR GALES S OF THE FNT. ON MON...NE WINDS SHUD PICK UP TO GALE AS FAR N AS SRN NEW ENGLAND...AND TO STORM FORCE NR THE VA CAPES AND NE NC WATERS. NW GALES SHUD EXTEND S OF THE CENTER TO AT LEAST CAPE ROMAIN...THESE CONDITIONS CONTG INTO TUE.

WARNINGS... NT1 NEW ENGLAND WATERS...NONE. NT2 MID ATLC WATERS...NONE.

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MARINE FORECAST BRANCH

#### 4. NAVTEX Forecasts:

FZNT23 KWNM 020743 OFFN01

NAVTEX MARINE FORECAST NATIONAL WEATHER SERVICE WASHINGTON DC MARINE PREDICTION CENTER MARINE FORECAST BRANCH 300 AM EST MAR 02 2001

...REFER TO COASTAL WATERS FORECAST (CWF) FOR DETAILED COASTAL WATERS INFORMATION...

.SYNOPSIS...A WEAK LOW WILL PASS ACROSS THE SOUTHERN WATERS THROUGH THIS AFTERNOON...ALONG A STATIONARY FRONT. THE FRONT WILL MOVE S OF THE WATERS SAT MORNING...AS LOW PRESSURE FORMS JUST E OF THE WATERS ON SAT.

EASTPORT ME TO CAPE COD MA...EAST TO THE HAGUE LINE.

...GALE WARNING...

. TODAY...N WINDS 25 TO 35 KT...DECREASING TO 10 KT. SEAS 2 TO 4 FT.

SCATTERED SNOW SHOWERS...WITH FREEZING SPRAY ENDING.

.TONIGHT...NE WINDS 10 TO 15 KT...BECOMING NW AND INCREASING TO 15 TO 20 KT LATE. SEAS 2 TO 4 FT. SCATTERED SNOW SHOWERS.

.SAT AND SAT NIGHT...NW WINDS INCREASING TO 20 TO 30 KT IN THE AFTERNOON. SEAS BUILDING TO 5 TO 8 FT...HIGHEST S. SNOW SHOWERS WITH FREEZING SPRAY.

CAPE COD TO NANTUCKET SHOALS AND GEORGES BANK...EAST TO THE HAGUE LINE.

.TODAY...NE WINDS 10 KT...EXCEPT VARIABLE OVER S PORTION. SEAS 3 TO 5 FT. SCATTERED SNOW SHOWERS.

.TONIGHT...VARIABLE WINDS 10 KT...BECOMING NW 15 KT LATE. SEAS 3 TO 5 FT. .SAT AND SAT NIGHT...WINDS BECOMING NW AND INCREASING TO 20 TO 30 KT IN THE AFTERNOON. SEAS BUILDING TO 8 TO 11 FT...HIGHEST NEAR THE HAGUE LINE. SCATTERED SNOW SHOWERS.

SOUTH OF NEW ENGLAND...OUT TO 1000 FMS.

.TODAY...W WINDS 10 TO 15 KT...EXCEPT VARIABLE 10 KT OVER N PORTION. SEAS 3 TO 5 FT...HIGHEST SE. SCATTERED SNOW SHOWERS.

.TONIGHT...WINDS BECOMING NW 10 TO 15 KT. SEAS 3 TO 5 FT.

.SAT AND SAT NIGHT...N WINDS INCREASING TO 20 TO 25 KT IN THE AFTERNOON. SEAS BUILDING TO 5 TO 8 FT. WINDS AND SEAS HIGHEST S OF NANTUCKET. SCATTERED SNOW SHOWERS DEVELOPING WITH FREEZING SPRAY.

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### 5. <u>High Seas Forecasts</u>:

FZNT01 KWBC 021631 HSFAT1

CCODE/1:31:04:01:00/AOW/NWS/CCODE HIGH SEAS FORECAST FOR METAREA IV NATIONAL WEATHER SERVICE WASHINGTON DC MARINE PREDICTION CENTER/MFB 1630 UTC MAR 2 2001 SUPERCEDED BY NEXT ISSUANCE IN 6 HOURS

PAN PAN

NORTH ATLANTIC NORTH OF 31N TO 67N AND WEST OF 35W.

SYNOPSIS VALID 1200 UTC MAR 2 24 HOUR FORECAST VALID 1200 UTC MAR 3 48 HOUR FORECAST VALID 1200 UTC MAR 4

WARNINGS.

HURRICANE FORCE WARNING. STORM WITH HURRICANE FORCE WINDS 48N 47W 992 MB MOVING NW 15 KT AND INLAND. WINDS 70 TO 80 KT SEAS 42 TO 53 FT WITHIN 220 NM NE SEMICIRCLE. 24 HOUR FORECAST STORM INLAND AND DISSIPATED.

GALE 39N 46W 987 MB MOVING NE 20 KT WILL TURN N. WINDS 30 TO 45 KT SEAS 15 TO 24 FT WITHIN 300 NM W AND 420 NM S QUADRANTS.

24 HOUR FORECAST GALE 43N 47W 986 MB. FORECAST WINDS 30 TO 40 KT SEAS 12 TO 20 FT WITHIN 300 NM OF THE CENTER.

48 FORECAST GALE 47N 48W 986 MB. FORECAST WINDS 30 TO 40 KT SEAS 10 TO 17 FT WITHIN 300 NM N SEMICIRCLE AND 240 NM SW QUADRANT.

DEVELOPING GALE 41N 60W 999 MB MOVING E SE 25 KT. WINDS 20 TO 30 KT SEAS 8 TO 14 FT WITHIN 300 NM SW QUADRANT.

24 HOUR FORECAST GALE 41N 48W 995MB. FORECAST WINDS 30 TO 35 KT SEAS 10 TO 15 FT WITHIN 260 NM OF THE CENTER.

48 HOUR FORECAST LOW 41N 38W 992 MB. FORECAST WINDS 20 TO 30 KT SEAS 10 TO 15 FT WITHIN 240 NM OF THE CENTER.

BY 0000 UTC MAR 3 DEVELOPING GALE 38N 66W 1003 MB WILL MOVE E 20 KT. 24 HOUR FORECAST GALE 36N 57W 1000 MB. FORECAST WINDS 25 TO 35 KT SEAS 10 TO 16 FT WITHIN 280 NM S SEMICIRCLE.

48 HOUR FORECAST GALE 35N 48W 997 MB. FORECAST WINDS 25 TO 35 KT SEAS 10 TO 16 FT WITHIN 300 NM S SEMICIRCLE

#### SYNOPSIS AND FORECAST.

EXCEPT AS MENTIONED IN THE WARNINGS...AREA OF WINDS 20 TO 30 KT SEAS 16 TO 26 FT E OF 40W S OF 48N. CONDITIONS MOVING E.

24 HOUR FORECAST AREA OF WINDS 20 TO 30 KT SEAS 10 TO 17 FT N OF 60N E OF GREENLAND EXPANDING TO N OF 58N E OF 42W.

48 HOUR FORECAST AREA OF WINDS 20 TO 30 KT SEAS 10 TO 17 FT EXPANDING TO N OF 56N E OF 40W.

HIGH 32N 60W 1018 MB MOVING E 10 KT. 24 HOUR FORECAST HIGH 32N 55W 1019 MB 48 HOUR FORECAST HIGH 33N 48W 1020 MB \$\$ FEIT MARINE FORECAST BRANCH

FZPN03 KNHC 200859 HSFEP2

CCODE/1:31:12:01:00/AOW+POR/NWS/CCODE
HIGH SEAS FORECAST FOR METAREA XII
NATIONAL WEATHER SERVICE MIAMI FL
TROPICAL PREDICTION CENTER/TROPICAL ANALYSIS AND FORECAST BRANCH
1030 UTC WED SEP 20 2001
SUPERCEDED BY NEXT ISSUANCE IN 6 HOURS

#### PAN PAN

E PACIFIC FROM THE EQUATOR TO 30N E OF 140W. SYNOPSIS VALID 0600 UTC WED SEP 20 2001 24 HR FORECAST VALID 0600 UTC THU SEP 21 2001 48 HR FORECAST VALID 0600 UTC FRI SEP 22 2001

#### WARNINGS

TROPICAL STORM ROSA NEAR 17.3N 103.2W 1004 MB AT 0900 UTC MOVING N OR 355 DEGREES AT 2 KT. MAXIMUM SUSTAINED WIND 55 KT WITH GUSTS TO 65 KT. RADIUS OF TROPICAL STORM FORCE WIND AND SEAS 12 FT OR GREATER WITHIN 150 NM OF CENTER. BY 1800 UTC SEP 20...HURRICANE AT 17.7N 103.3W. MAXIMUM SUSTAINED WIND 65 KT WITH GUSTS TO 75 KT. TROPICAL STORM FORCE WIND AND SEAS 12 FT OR GREATER WITHIN 180 NM OVER W SEMICIRCLE AND 150 NM E SEMICIRCLE.

24 HOUR FORECAST HURRICANE 18.1N 103.5W. FORECAST MAXIMUM SUSTAINED WINDS 80 KT WITH GUSTS TO 100 KT. FORECAST TROPICAL STORM FORCE WIND AND SEAS 12 FT OR GREATER WITHIN 200 NM RADIUS OF CENTER.
48 HOUR FORECAST HURRICANE 19.0N 104.0W. FORECAST MAXIMUM SUSTAINED WIND 75 KT WITH GUSTS TO 90 KT. FORECAST TROPICAL STORM FORCE WIND AND SEAS 12 FT OR GREATER WITHIN 180 NM RADIUS OF CENTER.

EXTENDED OUTLOOK...USE FOR GUIDANCE ONLY...ERRORS MAY BE LARGE. 0600 UTC SEP 23...HURRICANE NEAR 20.0N 105.5W. MAXIMUM SUSTAINED WIND 65 KT WITH GUSTS TO 75 KT. REQUEST 3 HOURLY SHIP REPORTS WITHIN 300 NM OF CENTER.

#### SYNOPSIS AND FORECAST

EXCEPT AS NOTED IN WARNINGS SECTION...WITHIN 210 NM OF ROSA WIND 20 TO 33 KT SEAS 8 TO 12 FT.

24 HOUR FORECAST LITTLE CHANGE.

48 HOUR FORECAST LITTLE CHANGE.

N OF 25N W OF 135W WIND SE 20 KT SEAS 8 TO 10 FT IN N SWELL.

24 HOUR FORECAST LITTLE CHANGE.

48 HOUR FORECAST LITTLE CHANGE.

REMAINDER FORECAST WATERS WIND LESS THAN 20 KT SEAS LESS THAN 8 FT.

CONVECTION VALID AS OF 0900 UTC WED SEP 20...NUMEROUS MODERATE/STRONG N OF 15N FROM 102W TO 107W ASSOCIATED WITH TROPICAL STORM ROSA.

INTERTROPICAL CONVERGENCE ZONE...6N77W 8N95W 10N110W 9N125W 8N140W. SCATTERED MODERATE TO STRONG 240 NM WIDE E OF 80W AND 120 NM WIDE FROM 107W TO 113W.

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XAVIER

#### TROPICAL PREDICTION CENTER/TROPICAL ANALYSIS AND FORECAST BRANCH

FZPN40 PHFO 021635 HSFNP

HIGH SEAS FORECAST FOR METAREA XII NATIONAL WEATHER SERVICE HONOLULU HI 1700 UTC FRI MAR 02 2001 SUPERCEDED BY NEXT ISSUANCE IN 6 HOURS

#### SECURITE

NORTH PACIFIC EQUATOR TO 30N BETWEEN 140W AND 160E SYNOPSIS VALID 1200 UTC MAR 02 2001 24 HOUR FORECAST VALID 1200 UTC MAR 03 2001 48 HOUR FORECAST VALID 1200 UTC MAR 04 2001

WARNINGS...VOLCANO LOPEVI 16S 168E ERUPTING LOWERING VISIBILITIES BLO 1 NM IN VOLCANIC ASH N TO VICINITY OF PONAPE BY 1200 UTC MAR 03.

#### SYNOPSIS AND FORECAST

SHEAR LINE THRU 30N 152W 25N 160W 23N 179W MOVING EAST 15 KTS. A FEW SHOWERS ALONG SHEARLINE. 24 HOUR FORECAST SHEAR LINE DISSIPATING. FORECAST 021800 UTC COLD FRONT THRU 30N 160E AND SOUTHWESTWARD MOVING E 30 KT. SW TO W WINDS 25 KT TO 30 KT WITHIN 300 NM OF FRONT N OF 27N. ISOLATED MODERATE TSTMS WITHIN 150 NM OF FRONT N OF 27N. 24 HOUR FORECAST FRONT THROUGH 30N 177E 22N 160E. WINDS 25 KT SEAS 8 FT. 48 HOUR FORECAST FRONT THROUGH 30N 175W 22N 179E. WINDS 20 KT OR LESS SEAS 8 FT OR LESS.

RIDGE THRU 26N 140W 24N 152W MOVING SLOWLY EAST. RIDGE THRU 30N 168W 28N 159W MOVING EAST 15 KTS. RIDGE THRU 30N 179W 25N 169E 25N 160E MOVING EAST 15 KTS.

WINDS 20 KT OR LESS SEAS 8 FT OR LESS OVER REMAINDER OF AREA. \$\$
HABLUTZEL

\*C Code not included since this is part of a collective.